

Attorney Docket No.: 42390.P9234

Application No.: 09/671,957

Page 4

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (original) A computer implemented method comprising:
defining a spatial location across a series of pictures of an MPEG stream; and
for each picture of the series of pictures in the MPEG stream, partially decoding the picture to determine an area of the picture falling within the spatial location.
2. (original) The method of claim 1 further comprising fully decoding at least the spatial location in the picture, but not all of the picture.
3. (original) The method of claim 1 further comprising forming a plurality of substreams from the partially decoded MPEG stream.
4. (original) A computer implemented method comprising:
decoding a picture of an MPEG stream into a plurality of slices having a set of slices at least partially within an area of the picture, the area being less than all of the picture;
decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area; and
decoding at least the set of macroblocks but not the plurality of macroblocks into pixels.

Attorney Docket No.: 42390.P9234

Application No.: 09/671,957

Page 5

5. (original) The method of claim 4 wherein the area is a region of interest.
6. (original) The method of claim 4 further comprising displaying the decoded set of macroblocks.
7. (currently amended) A computer implemented method comprising:
creating ~~an~~ a first MPEG compliant substream from an MPEG stream including a plurality of pictures, the first substream corresponding to a first region of interest (ROI), said first ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and
transmitting the first substream to a first recipient;
creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI
said second ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and
transmitting the second substream to a second recipient that is different than the first recipient.

*Attorney Docket No.: 42390.P9234
Application No.: 09/671,957
Page 6*

8. (currently amended) The method of claim 7 further comprising synchronizing display of the first substream with a the second MPEG compliant substream from the MPEG stream.

9. (currently amended) The method of claim 7 wherein the creation and transmission of the ~~substream~~ first and second substreams are performed in a lock-step manner.

10-12. (canceled)

13. (previously presented) A computer implemented method comprising:
decoding a picture from an MPEG stream;
selecting a Region of Interest in the picture;
constructing a new MPEG picture corresponding to the region of interest;
transmitting the new MPEG picture to a node; and
commanding the node to display the new MPEG picture.

14. (previously presented) The computer implemented method of 13 wherein the picture is an I-picture and the constructing the new MPEG picture comprises:
decoding the I-picture into a plurality of macroblocks;

*Attorney Docker No.: 42390.P9234
Application No.: 09/671,957
Page 7*

storing the plurality of macroblocks into a plurality of data structures, each of the plurality of data structures corresponding to a different one of the plurality of regions of interest; and

forming a new MPEG compliant I-picture from the macroblocks stored in one of the plurality of data structures.

15. (previously presented) The computer implemented method of 13 wherein the picture is a P/B-picture and the constructing the new MPEG picture comprises:

decoding the P/B-picture into a plurality of slices;

decoding each slice of the plurality of slices into a plurality of macroblocks;

if a macroblock of the plurality of macroblocks is an I-macroblock, storing the I-macroblock into one of a plurality of data structures, each of the plurality of data structures

representing a different one of the plurality of regions of interest;

if the macroblock of the plurality of macroblocks is a P/B-macroblock having at least one reference macroblock and if the reference macroblock is out of the represented region of interest, converting the P/B-macroblock into a new I-macroblock;

if the macroblock of the plurality of macroblocks is a P/B-macroblock and the P/B-macroblock is a skipped macroblock and follows a new I-macroblock and the picture is a B-picture, converting the P/B-macroblock into a new I-macroblock;

Attorney Docket No.: 42390.P9234

Application No.: 09/671,957

Page 8

if the macroblock of the plurality of macroblocks is a P/B-macroblock and the P/B-macroblock is a skipped macroblock and will occur at the beginning or end of a new slice, converting the P/B-macroblock into a new I-macroblock;

storing the new I-macroblocks and remaining P/B-macroblocks of the plurality of macroblocks into the plurality of data structures;

forming a new slice with the macroblocks stored in one of the plurality of data structures; accumulating a plurality of the new slices; and

forming an MPEG compliant P/B-picture by encoding the plurality of the new slices.

16. (original) The method of claim 13, wherein the regions of interest are different spatial locations of the picture which form the picture when combined.

17. (original) The method of claim 13 wherein the regions of interest are overlapping areas of the picture which form the picture when combined.

18. (original) The method of claim 13 further comprising commanding a second node to display a second new picture from the picture in synchronization with display of the new picture.

19-29. (canceled)

Attorney Docket No.: 42390.P9234

Application No.: 09/671,957

Page 9

30. (original) A machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising:
defining a spatial location across a series of pictures of an MPEG stream; and
for each picture of the series of pictures in the MPEG stream, partially decoding the picture to determine an area of the picture falling within the spatial location.

31. (original) The machine readable medium of claim 30 that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations further comprising fully decoding at least the spatial location in the picture, but not all of the picture.

32. (original) The machine readable medium of claim 30 that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations further comprising forming a plurality of substreams from the partially decoded MPEG stream.

33. (original) A machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising:
decoding a picture of an MPEG stream into a plurality of slices having a set of slices at least partially within an area of the picture, the area being less than all of the picture;
decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area; and

Attorney Docket No.: 42390.P9234
Application No.: 09/671,957
Page 10

decoding at least the set of macroblocks but not the plurality of macroblocks into pixels.

34. (original) The machine readable medium of claim 33 wherein the area is a region of interest.

35. (original) The machine readable medium of claim 33 further comprising displaying the set of decoded macroblocks.

36. (currently amended) A machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising:

creating an a first MPEG compliant substream from an MPEG stream including a plurality of pictures, the first substream corresponding to a first region of interest (ROI), said first ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and

transmitting the first substream to a first recipient;

creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI, said second ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and

Attorney Docket No.: 42390.P9234
Application No.: 09/671,957
Page 11

transmitting the second substream to a second recipient that is different than the first recipient.

37. (currently amended) The machine readable medium of claim 36 that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations further comprising synchronizing display of the first substream with a the second MPEG compliant substream from the MPEG stream.

38. (currently amended) The machine readable medium of claim 36 further comprising a lock-step mechanism governing the creation and transmission of the ~~substream~~ first and second substreams.

39-41. (canceled)